

Interactive comment on “Radar coherence and NDVI ratios as landslide early warning indicators” by Mylène Jacquemart and Kristy Tiampo

Anonymous Referee #3

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This work used radar and optical data to reproduce the creep deformation before Big Sur Coast landslide, and the result showed better consistent trend in time series in coherence ratio, amplitude ratio and NDVI ratio. Especially the results coincided with reported research data. Undoubtedly, it had potential scientific value for the understanding of historical landslide and the monitoring or early warning on instable slopes. My interest lies in the combination of NDVI and interferometric data. From the reader's view, I also hope to find the analysis and discussion on the advantages and disadvantages by using Interferometric Radar displacement detection or optical image alone to analyze the prophase movement of landslide, especially their respective limitations, as well as the advantages and necessity of the combination of the two methods. Therefore my comments and suggestions mainly focused on the Discussion part, details as

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follows: (1) In addition to the historical studies cited to evident the prediction of sliding time, it is suggested to supply the derivation of displacement (Fig.5) and adding graphic comparison with former observed acceleration data. (2) Based on the data in Figures 6 and 7, it is suggested to comment on the limitations or advantages of the two aspects of data, Radar coherence and NDVI ratios, in landslide prediction, especially factors may influencing results. And the advantage or necessary of combination of Radar coherence and NDVI ratios in landslide prediction, so as to better respond to the scientific problems mentioned in the Introduction part. (3) Clarify whether the indicators of Radar coherence and NDVI ratios are competent for landslide prediction and are there any suggestions for future research?

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